

WE CLAIM:

1. A method of managing technical services within a mobile vehicle communications system comprising:
  - 5 receiving a request for technical services from a telematics device; determining a technical service action based on the received request for technical services; and providing a technical service to the telematics device responsive to the technical service action determination.
- 10 2. The method of claim 1 wherein the request for technical services includes vehicle identification data for the telematics device requesting the technical services.
3. The method of claim 1 further comprising:
  - maintaining a technical services queue.
- 15 4. The method of claim 3 wherein maintaining a technical service action queue comprises:
  - selecting a technical service action for at least one telematics device;
  - associating the technical service action with a user account and a
  - 20 vehicle identification for the user account;
  - assigning the associated technical service action to a position in a technical services queuing database; and
  - generating a notification of a pending technical service action for a user based on the technical service action associated with the user account.
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5. The method of claim 1 wherein determining a technical service action comprises:

- identifying a user account associated with the telematics device
- 5 based on the received request; and
- determining if one or more technical service actions associated with the user account are pending in a technical services queue.

6. The method of claim 1 further comprising:

generating a technical services request from the telematics device.

10 7. The method of claim 6 wherein generating a technical services request comprises:

- activating a user interface;
- receiving a command to the user interface to initiate a technical service request; and
- 15 initiating a technical services communication protocol sequence based on the received command.

8. The method of claim 7 wherein initiating a technical services communication protocol sequence comprises:

- initiating a first authenticating telephone call attempt from a
- 20 telematics device to a technical services queue through a first carrier by outputting a first telephone number;
- determining if the first telephone number is registered in the home location register of the first carrier wherein the call attempt is aborted when the first telephone number is not registered in the home location register of the first
- 25 carrier;

initiating a second authenticating telephone call attempt through a secondary carrier by outputting the first telephone number when the first telephone number is not registered in the home location register of the first carrier;

determining if the first telephone number is registered in the home location register of the second carrier wherein the call is aborted when the first telephone number is not registered in the home location register of the second carrier;

wherein vehicle identification data is exchanged between the telematics device and the technical services queue modem when the authenticating call is verified in the home location register of the first and second carrier responsive to each determination.

9. The method of claim 8 further comprising:

initiating a third telephone call attempt from the telematics device to a call center through the first carrier by outputting a second telephone number when the second authenticating call attempt fails;

initiating a fourth telephone call attempt from the telematics device to the call center through the second carrier by outputting the second telephone number when the third telephone call attempt fails;

wherein vehicle identification data is exchanged between the telematics device and the call center modem when a telephone call is connected.

10. The method of claim 9 further comprising:  
initiating a fifth telephone call from the telematics device to the call  
center through the first carrier by outputting a failed-to-voice telephone number  
5 when the second authenticating call attempt fails wherein the failed-to-voice  
number connects with an advisor interface at a call center.

11. The method of claim 1 wherein the technical services is selected  
from the group consisting of: SID table updates, telematics device  
reconfigurations, mobile configurations, programming error corrections, and  
10 phone number configurations.

12. A computer readable medium storing a computer program  
comprising:  
computer readable code for controlling a communication interface  
implemented to receive a request for technical services from a telematics device;  
15 computer readable code for determining a technical service action  
based on the received request for technical services; and  
computer readable code for providing a technical service to the  
telematics device responsive to the technical service action determination.

13. The computer readable medium of claim 12 further comprising:  
computer readable code for associating a selected technical  
service action for a telematics device with a user account and a vehicle  
5 identification for the user account;  
computer readable code for assigning the associated technical  
service action to a technical services queue; and  
computer readable code for generating a notification of a pending  
technical service action for a user based on the technical service action  
10 associated with the user account.
14. The computer readable medium of claim 12 wherein computer  
readable code for determining a technical service action based on the received  
request for technical services comprises:  
computer readable code for identifying a user account associated  
15 with the telematics device based on the received request; and  
computer readable code for determining if one or more technical  
service actions associated with the user account are pending in a technical  
services queue.
15. The computer readable medium of claim 12 further comprising:  
20 computer readable code for generating a technical services request  
from the telematics device.

16. The computer readable medium of claim 15 wherein code for generating a technical services request comprises:

5 computer readable code for initiating a technical services communication protocol sequence responsive to a command received from a user interface.

17. The computer readable medium of claim 16 wherein computer readable code for wherein initiating a technical services communication protocol sequence comprises:

10 computer readable code for initiating a first authenticating telephone call attempt from a telematics device to a technical services queue through a first carrier by outputting a first telephone number;

computer readable code for determining if the first telephone number is registered in the home location register of the first carrier wherein the call attempt is aborted when the first telephone number is not registered in the  
15 home location register of the first carrier;

computer readable code for initiating a second authenticating telephone call attempt through a secondary carrier by outputting the first telephone number when the first telephone number is not registered in the home location register of the first carrier;

20 computer readable code for determining if the first telephone number is registered in the home location register of the second carrier wherein the call is aborted when the first telephone number is not registered in the home location register of the second carrier;

25 wherein vehicle identification data is exchanged between the telematics device and the technical services queue modem when the authenticating call is verified in the home location register of the first and second carrier responsive to each determination.

18. The computer readable medium of claim 17 further comprising:  
computer readable code for initiating a third telephone call attempt  
from the telematics device to a call center through the first carrier by outputting a  
5 second telephone number when the second authenticating call attempt fails;  
computer readable code for initiating a fourth telephone call attempt  
from the telematics device to the call center through the second carrier by  
outputting the second telephone number when the third telephone call attempt  
fails; and  
10 wherein vehicle identification data is exchanged between the  
telematics device and the call center modem when a telephone call is connected.

19. The computer readable medium of claim 18 further comprising:  
initiating a fifth telephone call from the telematics device to the call center  
through the first carrier by outputting a failed-to-voice telephone number when  
15 the second authenticating call attempt fails wherein the failed-to-voice number  
connects with an advisor interface at a call center.

20. A system for managing technical services within a mobile vehicle  
communications system comprising:  
means for receiving a request for technical services from a  
20 telematics device;  
means for determining a technical service action based on the  
received request for technical services; and  
means for providing a technical service to the telematics device  
responsive to the technical service action determination.

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